UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,290	11/28/2000	Walter Muller		5693

7590 11/01/2002

JORDAN & HAMBURG LLP
122 EAST 42ND STREET
NEW YORK, NY 10168

EXAMINER
GHALI, ISIS A D

ART UNIT	PAPER NUMBER
1615	

DATE MAILED: 11/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/647,290	MULLER ET AL.	
	Examiner	Art Unit	
	Isis Ghali	1615	

-- The MAILING DATE of this communication appears n the c ver sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-41* is/are pending in the application.

4a) Of the above claim(s) *34-41* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *11* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

The receipt is acknowledged of applicants' IDS, request for extension of time and amendment B, all filed 8/20/2002.

1. This application contains claims 34-41 drawn to an invention nonelected with traverse in Paper No. 9. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claims 18-33 are included in the prosecution.

Response to Arguments

2. Applicant's arguments filed 8/20/2002 have been fully considered but they are not persuasive.

The standing rejections:

I. Claim Rejections - 35 USC § 102

(A) Claims 18-20, 22, 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiang et al.

Chiang et al. disclosed a N-0923, (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol in a transdermal delivery system. The system comprises the drug in a pressure sensitive adhesive matrix based on silicone or acrylate,

propylene glycol, and permeation enhancer (page 710, left col., last paragraph; page 711, right col., table 1). The system comprises a release film and a casting film, i.e. backing (page 710, right col., first paragraph). The solubility of particular drug in particular adhesive is inherent. The reference silence regarding the inorganic silicates, indicating the system is free or substantially free of them.

(B) Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by WO 94/07468 ('468).

WO '468 disclosed a transdermal drug delivery device comprising a matrix containing the drug in a polymer base; backing layer; and release liner (abstract; page 3, lines 13-29). The drugs included (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol in an amount of 1-20 % (page 7, lines 27-29; page 8, lines 1-2). The polymers are silicone-based or acrylate-based with solubility of drugs less than 1 % (page 5, lines 1-3, 33-35; page 11, lines 25-30). The matrix further comprises a permeation enhancer include fatty acids (oleic acid), fatty ester, and fatty alcohol (oleyl alcohol), (page 6, lines 6-12). The matrix comprises a hydrophilic polymer such as propylene glycol and polyethylene glycol (page 6, lines 21-23). The reference discloses the inorganic silicate as low as 2 % (page 17, lines 19-20).

II. Claim Rejections - 35 USC § 103

Claims 18-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang et al. or WO '468 each standing by itself or in combination.

The teachings of the references are discussed under 102 rejections above. However, the references do not teach the species of the acrylate-based adhesive; and Chiang's reference does not teach the particular permeation enhancers disclosed by the applicants, nor the amount of the drug in the adhesive matrix.

It is within the skill in the art to select optimal parameters such as ratios and weight percents of components in order to achieve a beneficial effect. Therefore, the ratios and weight percents of the drug and the inorganic silicate instantly claimed are not considered critical absent evidence showing unexpected and superior results.

It is also within the skill in the art to select the species of the acrylate-based polymer as well as the permeation enhancers.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a transdermal device to deliver (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol in polymer matrix of silicone or acrylate, and adjust the amount of the inorganic silicate in order to achieve the desired cohesiveness of the matrix layer with reasonable expectation of success of the delivered device in providing effective amount of dopamine agonists to patients suffering from Parkinsonism.

Applicants' arguments:

- Both of Chiang et al. and WO '468 used a salt of (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol, namely its hydrochloride that causes the formation of two-phase matrix system.

- Chiang et al. show 10 times increase in (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol release in two-phase system in comparison to a simple matrix, and WO '468 indicates that hardly any skin flux can be achieved with simple matrix system and only two-phase matrix system allows a reasonable skin flux. Applicants further argue that the WO '468 teaches particulate hydrophilic material in the adhesive matrix containing (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol.
- Neither Chiang et al. nor WO '468 provides any motivation to those with ordinary skill in the art to refrain from the two-phase system and to expect that a simple matrix system would be capable of allowing administration of (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol with reasonable flux rates.

Examiner's position:

- With careful revision for both references, Chiang's reference does not teach anywhere hydrochloride salt of (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol, and WO '468 teaches both the free drug and the salt. Applicants specification, page 8 and in the examples, shows that both the drug and the hydrochloride salt can be used. Both references disclosed the simple matrix as well as the two-phase matrix systems. Both references taught the (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol in silicone adhesive, and silicone adhesive is known to be hydrophobic and this

means that the drug is used in its free form, and not in its salt form, in order to be dissolved or dispersed in the hydrophobic silicone.

- Even if both references taught less skin flux in the simple matrix compared to the two-phase matrix, the use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain. *In re Heck*, 699 F.2d 1331, 1332—33, 216 USPQ 1038, 1039 (Fed. Cir 1983). A reference may be relied upon for all that it would have reasonable suggested to one having ordinary skill in the art, including nonpreferred embodiments. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use. The claim language "comprising" permits the presence of the particulate hydrophilic material, note that applicants are instantly claiming silicate particulate. Applicants are not claiming any particular flux rates.
- In response to applicant's argument that there is no suggestion to refrain from the two-phase system disclosed by the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re*

Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both references teach the simple matrix system comprising (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol, and it is within the skill in the art to select the matrix system according to the desired flux rate or dose needed according to the patient's condition. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Izaak et al. and Swart et al., both disclosed transdermal administration of dopamine agonists. US 5,043,482 disclosed topical administration of (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol. US 5,382,569 disclosed (-)-5,6,7,8-tetrahydro-6-[propyl-1[2-(2-thienyl) ethyl]amino]-1-naphthalenol for treating Parkinsonism.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isis Ghali whose telephone number is (703) 305-4048. The examiner can normally be reached on Monday through Thursday from 7:00 AM to 5:30 PM, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page, can be reached on (703) 308-2927. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3592.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1235.

Isis Ghali
Examiner
Art Unit 1615

THURMAN K. PAGE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600